

METHOD FOR FORMING A SELF-ALIGNED LTPS TFT

Abstract

A method for forming a self-aligned low temperature polysilicon thin film transistor (LTPS TFT). First, active layers of a N type LTPS TFT (NLTPS TFT) and a P type LTPS TFT (PLTPS TFT) are formed on a substrate, and a gate insulating (GI) layer is formed on the substrate. Then, a source electrode, a drain electrode, and lightly doped drains (LDD) of the NLTPS TFT are formed. Further, gate electrodes of the NLTPS TFT and the PLTPS TFT are formed on the gate insulating layer. Finally, the gate electrode of the PLTPS TFT is utilized to form a source electrode and a drain electrode in the active layer of the PLTPS TFT.